INTEGRATED SATELLITE NETWORK OF THE DIRECCIÓN METEOROLÓGICA DE CHILE (DMC)
DESCRIPTION, AVAILABLE PRODUCTS AND FUTURE PLANS

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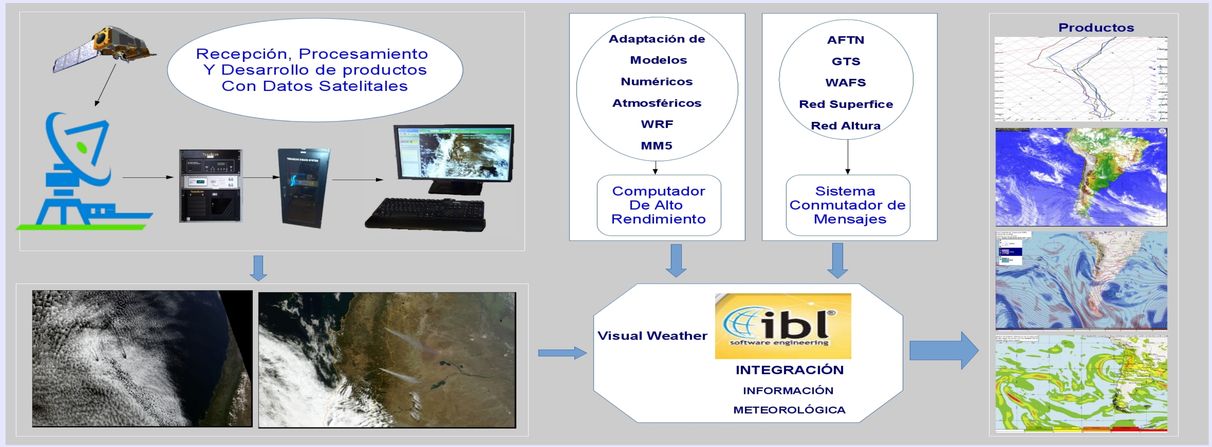
INTRODUCTION

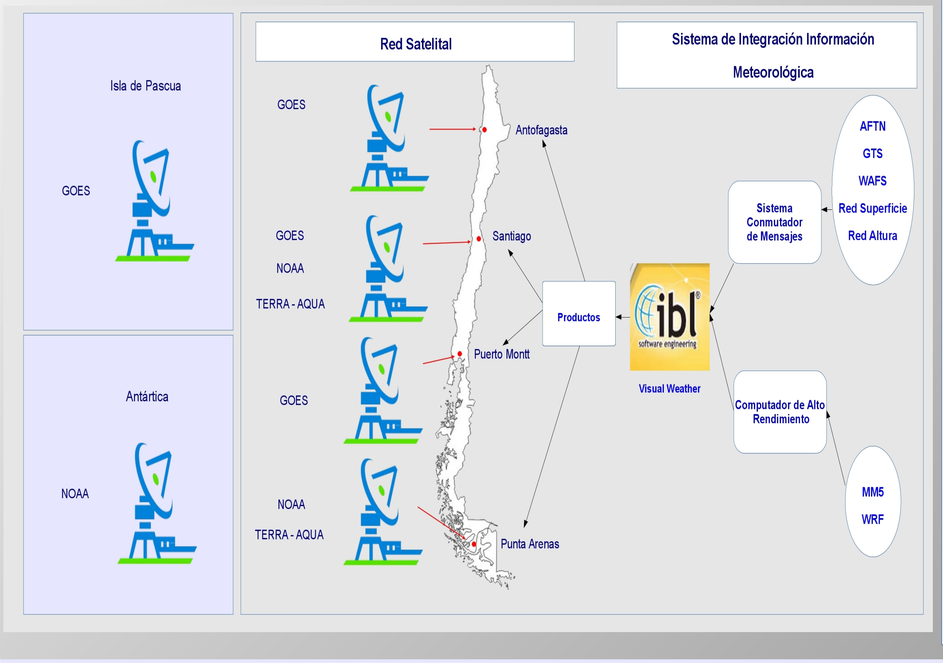
Presently the Chilean Meteorological Office is operating and analysis and forecasting system based on a mixture of:
- an international meteorological network composed of surface and upper air facilities.
- regional versions of two numerical prediction models MM5 (Mesoscale Model version 5) and WRF (Weather Research and Forecasting) and
- high resolution satellite images from the NOAA (HRPT), GOES (GVAR) and TERRA – AQUA (MODIS).

ACTUAL DESCRIPTION OF THE INTEGRATED SATELLITE NETWORK



WHAT IS THE INTEGRATED SATELLITE NETWORK?

All this information is processed and mixed in the “Integrated Satellite Network” being sent trough out the country. Thus integrated satellite network is a meteorological system capable to receive, process, display and integrate high resolution satellite information, coming from the satellite GOES, NOAA, TERRA and AQUA together with other types of meteorological information, such as data produced by numerical modeling and observations, from suface level and upper air. Integrated Satellite Network is a data server integrating meteorological information from various sources, in several systems such as WAFS (World Area Forecast System) and GTS (Global Telecommunication System), allowing processing and exchange of various meteorological products which are the ingredients for analysis and prediction in all the forecasting centers along the country.



Presently the Integrated Satellite Network

Operates 9 antennas for satellite reception:

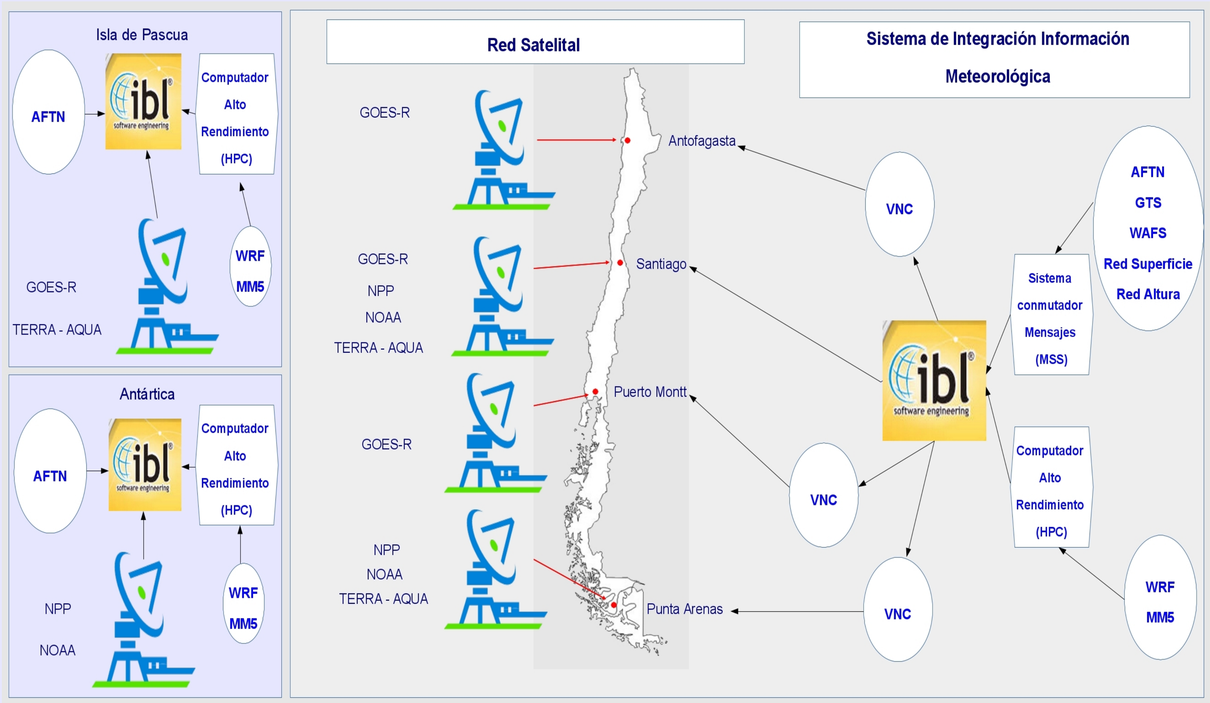
4 GOES-13
3 NOAA
2 TERRA-AQUA

Installed in the Regional Meteorological Centers

North (Antofagasta)
Pacific (Isla de Pascua)
South (Puerto Montt)
Austral (Punta Arenas)
Antartic (Antártica)
Santiago (Santiago-DMC)

TECHNOLOGICAL UPDATE OF THE INTEGRATED SATELLITE NETWORK – PROJECT 2016

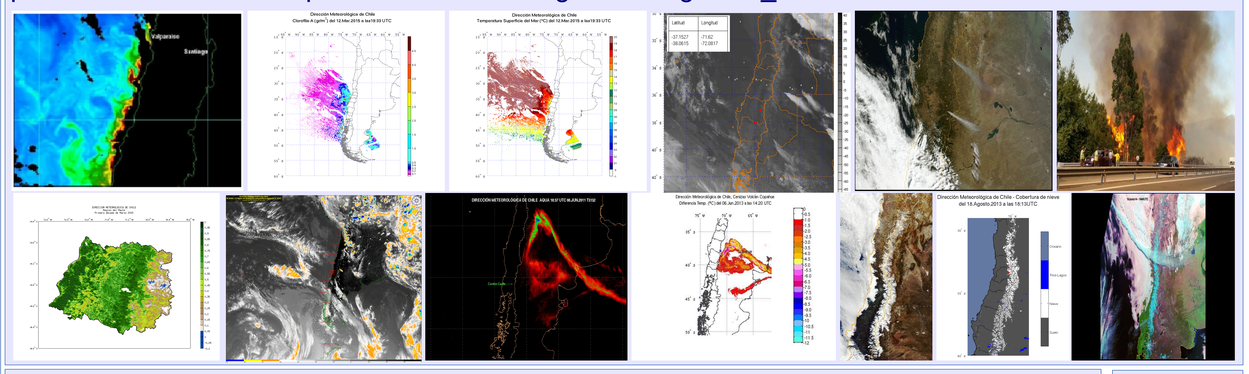
Presently, the Chilean Meteorological Office is in process of upgrading of the Integrated Satellite Network at a national level, to make it compatible with the new generation of geostationary meteorological satellites (GOES: Geostationary Operational Environmental Satellites) and the polar orbit satellites (NPP: NPOESS Preparatory Project).



AFTN: Aeronautical Fixed Telecommunication Network
WRF: Weather Research Forecasting
GTS: Global Telecommunication System
VNC: Virtual Network Computing
MM5: Mesoscale Model versión 5
WAFS: World Area Forecast System

CURRENT PRODUCTS OF INTEGRATED SATELLITE NETWORK

Products are generated periodically received data from MODIS, GOES, TERRA and AQUA satellites, for aeronautical meteorology, agriculture, climatology, forest service, produced pictures of water vapor, visible and infrared spectra beside fields of air temperature and dew point at several vertical levels, images NDVI, images NDSI, fire points, maps of the volcanic ash clouds, among other products available at http:// www.meteochile.gob.cl/imagenes _satelitales.cl



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